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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,130	07/24/2001	Boris Felts	PHFR 000076	4032

24737 7590 03/07/2006

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EXAMINER

AN, SHAWN S

ART UNIT PAPER NUMBER

2613

DATE MAILED: 03/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/912,130	Applicant(s) FELTS ET AL.	
	Examiner Shawn S. An	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2 and 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Appeal Brief

1. Applicants' arguments with respect to claims 1-2 have been carefully considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pearlman et al (6,671,413 B1) in view of Li et al (6,625,321 B1).

Regarding claim 1, Pearlman et al discloses an encoding method comprising a 3-D wavelet transform having successive resolution levels based on the SPIHT (col. 5, lines 3-15), and leading pixels of the video sequence to wavelet transform coefficients with a binary format, the coefficients being organized in trees and ordered in partitioning subsets corresponding to 3 ordered lists called LIS, LIP, and LSP (abs.; col. 5, lines 30-53), the tests being carried out in order to divide the original set of pixels into the partitioning subsets according to a division process until each significant coefficient is encoded within binary representation, and sign bits also put in the output bitstream to be transmitted (Fig. 2A), the method for the determination of the probabilities of occurrence of the symbols 0 and 1 in the each level of significance, four models represented by four context trees are considered (Fig. 4), and a further distinction is made between models for the Y, U, and V (col. 17, lines 1-11).

Pearlman et al does not seem to estimate the probabilities of occurrence of the symbols 0 and 1 in the each level of significance.

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However, Li et al teaches an embedded image encoder comprising estimating the probabilities of occurrence of the symbols 0 and 1 in each level of significance for optimizing rate-distortion performance (col. 6, lines 59-67; col. 7, lines 1-24).

Therefore, it would have been obvious to a person of ordinary skill in the art employing an encoding method as taught by Pearlman et al to incorporate Li et al's teaching as above for estimating the probabilities of occurrence of the symbols 0 and 1 in each level of significance for optimizing rate-distortion performance.

Allowable Subject Matter

4. Claims 2-3 are objected to as being dependent upon a rejected base claim 1, but would be allowable: if claim 2 is rewritten in independent form including all of the limitations of the base claim 1 and any intervening claims.

Dependent claim 2 recites novel features including the encoding of each bit, a context formed of d bits preceding the current bit and different according to the model considered for the current bit being used, wherein the context being distinguished for the luminance coefficients, the chrominance ones – while differentiating the U and V planes, and for every frame in the spatio-temporal decomposition, wherein these contexts being gathered in a structure depending on the type of symbols, coming from the LIS, LIP, LSP or from the sign bitmap, on the color plane Y, U, or V, and on the frame in the temporal subband.

The prior art of record fails to anticipate or make obvious the novel features.

Accordingly, if the amendments are made to the claims listed above, and if rejected claim is canceled, the application would be placed in condition for allowance.

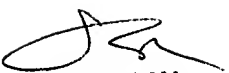
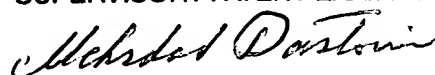
Conclusion

5. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S. An* whose telephone number is 571-272-7324.

6. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MEHRDAD DASTOURI
SUPERVISORY PATENT EXAMINER



SHANNAN
PRIMARY EXAMINER

3/1/06